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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/724,965

DATE: 12/19/2001
TIME: 16:21:10

Input Set : A:\14643-009031US.txt
Output Set: N:\CRF3\12192001\I724965.raw

ENTERED

SEQUENCE LISTING

4 (1) GENERAL INFORMATION:
 6 (i) APPLICANT: Lonberg, Nils
 7 Kay, Robert M.
 9 (ii) TITLE OF INVENTION: Transgenic Non-Human Animals for
 10 Producing Heterologous Antibodies
 12 (iii) NUMBER OF SEQUENCES: 417
 14 (iv) CORRESPONDENCE ADDRESS:
 15 (A) ADDRESSEE: Townsend and Townsend and Crew LLP
 16 (B) STREET: Two Embarcadero Center, Eighth Floor
 17 (C) CITY: San Francisco
 18 (D) STATE: California
 19 (E) COUNTRY: USA
 20 (F) ZIP: 94111-3834
 22 (v) COMPUTER READABLE FORM:
 23 (A) MEDIUM TYPE: Floppy disk
 24 (B) COMPUTER: IBM PC compatible
 25 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 26 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
 28 (vi) CURRENT APPLICATION DATA:
 C--> 29 (A) APPLICATION NUMBER: US/09/724,965
 C--> 30 (B) FILING DATE: 28-Nov-2000
 31 (C) CLASSIFICATION:
 102 (vii) PRIOR APPLICATION DATA:
 35 (A) APPLICATION NUMBER: US 08/758,417
 36 (B) FILING DATE: 02-DEC-1996
 39 (A) APPLICATION NUMBER: US 08/728,463
 40 (B) FILING DATE: 10-OCT-1996
 43 (A) APPLICATION NUMBER: US 08/544,404
 44 (B) FILING DATE: 10-OCT-1995
 47 (A) APPLICATION NUMBER: US 08/352,322
 48 (B) FILING DATE: 07-DEC-1994
 51 (A) APPLICATION NUMBER: US 08/209,741
 52 (B) FILING DATE: 09-MAR-1994
 55 (A) APPLICATION NUMBER: US 08/165,699
 56 (B) FILING DATE: 10-DEC-1993
 59 (A) APPLICATION NUMBER: US 08/161,739
 60 (B) FILING DATE: 03-DEC-1993
 63 (A) APPLICATION NUMBER: US 08/155,301
 64 (B) FILING DATE: 18-NOV-1993
 67 (A) APPLICATION NUMBER: US 08/096,762
 68 (B) FILING DATE: 22-JUL-1993
 71 (A) APPLICATION NUMBER: US 08/053,131
 72 (B) FILING DATE: 26-APR-1993
 75 (A) APPLICATION NUMBER: US 07/990,860
 76 (B) FILING DATE: 16-DEC-1992
 79 (A) APPLICATION NUMBER: US 07/904,068

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80 (B) FILING DATE: 23-JUN-1992
83 (A) APPLICATION NUMBER: US 07/853,408
84 (B) FILING DATE: 18-MAR-1992
87 (A) APPLICATION NUMBER: US 07/810,279
88 (B) FILING DATE: 17-DEC-1991
91 (A) APPLICATION NUMBER: US 07/575,962
92 (B) FILING DATE: 31-AUG-1990
95 (A) APPLICATION NUMBER: US 07/574,748
96 (B) FILING DATE: 29-AUG-1990
99 (A) APPLICATION NUMBER: WO PCT/US92/10983
100 (B) FILING DATE: 29-AUG-1991
103 (A) APPLICATION NUMBER: WO PCT/US91/06185
104 (B) FILING DATE: 29-AUG-1991
106 (viii) ATTORNEY/AGENT INFORMATION:
107 (A) NAME: Serafini, Andrew T.
108 (B) REGISTRATION NUMBER: 41,303
109 (C) REFERENCE/DOCKET NUMBER: 014643-009030US
111 (ix) TELECOMMUNICATION INFORMATION:
112 (A) TELEPHONE: (415) 576-0200
113 (B) TELEFAX: (415) 576-0300
116 (2) INFORMATION FOR SEQ ID NO: 1:
118 (i) SEQUENCE CHARACTERISTICS:
119 (A) LENGTH: 10 base pairs
120 (B) TYPE: nucleic acid
121 (C) STRANDEDNESS: single
122 (D) TOPOLOGY: linear
W--> 124 (ii) MOLECULE TYPE: DNA
127 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
129 CTAADTGGGG 10
132 (2) INFORMATION FOR SEQ ID NO: 2:
134 (i) SEQUENCE CHARACTERISTICS:
135 (A) LENGTH: 5 amino acids
136 (B) TYPE: amino acid
137 (C) STRANDEDNESS:
138 (D) TOPOLOGY: linear
140 (ii) MOLECULE TYPE: peptide
143 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
145 Asp Ala Phe Asp Ile
146 1 5
149 (2) INFORMATION FOR SEQ ID NO: 3:
151 (i) SEQUENCE CHARACTERISTICS:
152 (A) LENGTH: 5 amino acids
153 (B) TYPE: amino acid
154 (C) STRANDEDNESS:
155 (D) TOPOLOGY: linear
157 (ii) MOLECULE TYPE: peptide
160 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
162 Asp Tyr Phe Asp Tyr
163 1 5

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166 (2) INFORMATION FOR SEQ ID NO: 4:
168 (i) SEQUENCE CHARACTERISTICS:
169 (A) LENGTH: 5 amino acids
170 (B) TYPE: amino acid
171 (C) STRANDEDNESS:
172 (D) TOPOLOGY: linear
174 (ii) MOLECULE TYPE: peptide
177 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
179 Gly Ala Phe Asp Ile
180 1 5
183 (2) INFORMATION FOR SEQ ID NO: 5:
185 (i) SEQUENCE CHARACTERISTICS:
186 (A) LENGTH: 4 amino acids
187 (B) TYPE: amino acid
188 (C) STRANDEDNESS:
189 (D) TOPOLOGY: linear
191 (ii) MOLECULE TYPE: peptide
194 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
196 Lys Glu Arg Val
197 1
200 (2) INFORMATION FOR SEQ ID NO: 6:
202 (i) SEQUENCE CHARACTERISTICS:
203 (A) LENGTH: 4 amino acids
204 (B) TYPE: amino acid
205 (C) STRANDEDNESS:
206 (D) TOPOLOGY: linear
208 (ii) MOLECULE TYPE: peptide
211 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
213 Asn Asp Ser Val
214 1
217 (2) INFORMATION FOR SEQ ID NO: 7:
219 (i) SEQUENCE CHARACTERISTICS:
220 (A) LENGTH: 12 base pairs
221 (B) TYPE: nucleic acid
222 (C) STRANDEDNESS: single
223 (D) TOPOLOGY: linear
W--> 225 (ii) MOLECULE TYPE: RNA
228 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 12
230 AAAGAAAGAG UU
233 (2) INFORMATION FOR SEQ ID NO: 8:
235 (i) SEQUENCE CHARACTERISTICS:
236 (A) LENGTH: 12 base pairs
237 (B) TYPE: nucleic acid
238 (C) STRANDEDNESS: single
239 (D) TOPOLOGY: linear
W--> 241 (ii) MOLECULE TYPE: RNA
244 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 12
246 AACGACAGCG UU
249 (2) INFORMATION FOR SEQ ID NO: 9:

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251 (i) SEQUENCE CHARACTERISTICS:
252 (A) LENGTH: 15 base pairs
253 (B) TYPE: nucleic acid
254 (C) STRANDEDNESS: single
255 (D) TOPOLOGY: linear
W--> 257 (ii) MOLECULE TYPE: DNA
260 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
262 GAGCTGAGCT GGGGT 15
265 (2) INFORMATION FOR SEQ ID NO: 10:
267 (i) SEQUENCE CHARACTERISTICS:
268 (A) LENGTH: 20 base pairs
269 (B) TYPE: nucleic acid
270 (C) STRANDEDNESS: single
271 (D) TOPOLOGY: linear
W--> 273 (ii) MOLECULE TYPE: DNA
276 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
278 GAGCTGAGCT GAGCTGGGGT 20
281 (2) INFORMATION FOR SEQ ID NO: 11:
283 (i) SEQUENCE CHARACTERISTICS:
284 (A) LENGTH: 25 base pairs
285 (B) TYPE: nucleic acid
286 (C) STRANDEDNESS: single
287 (D) TOPOLOGY: linear
W--> 289 (ii) MOLECULE TYPE: DNA
292 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
294 GAGCTGAGCT GAGCTGAGCT GGGGT 25
297 (2) INFORMATION FOR SEQ ID NO: 12:
299 (i) SEQUENCE CHARACTERISTICS:
300 (A) LENGTH: 30 base pairs
301 (B) TYPE: nucleic acid
302 (C) STRANDEDNESS: single
303 (D) TOPOLOGY: linear
W--> 305 (ii) MOLECULE TYPE: DNA
308 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
310 GAGCTGAGCT GAGCTGAGCT GAGCTGGGGT 30
313 (2) INFORMATION FOR SEQ ID NO: 13:
315 (i) SEQUENCE CHARACTERISTICS:
316 (A) LENGTH: 35 base pairs
317 (B) TYPE: nucleic acid
318 (C) STRANDEDNESS: single
319 (D) TOPOLOGY: linear
W--> 321 (ii) MOLECULE TYPE: DNA
324 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
326 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GGGGT 35
329 (2) INFORMATION FOR SEQ ID NO: 14:
331 (i) SEQUENCE CHARACTERISTICS:
332 (A) LENGTH: 40 base pairs
333 (B) TYPE: nucleic acid
334 (C) STRANDEDNESS: single

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335	(D) TOPOLOGY: linear	
W--> 337	(ii) MOLECULE TYPE: DNA	
340	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:	
342	GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGGGT	40
345	(2) INFORMATION FOR SEQ ID NO: 15:	
347	(i) SEQUENCE CHARACTERISTICS:	
348	(A) LENGTH: 45 base pairs	
349	(B) TYPE: nucleic acid	
350	(C) STRANDEDNESS: single	
351	(D) TOPOLOGY: linear	
W--> 353	(ii) MOLECULE TYPE: DNA	
356	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:	
358	GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GGGGT	45
361	(2) INFORMATION FOR SEQ ID NO: 16:	
363	(i) SEQUENCE CHARACTERISTICS:	
364	(A) LENGTH: 50 base pairs	
365	(B) TYPE: nucleic acid	
366	(C) STRANDEDNESS: single	
367	(D) TOPOLOGY: linear	
W--> 369	(ii) MOLECULE TYPE: DNA	
372	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:	
374	GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGGGT	50
377	(2) INFORMATION FOR SEQ ID NO: 17:	
379	(i) SEQUENCE CHARACTERISTICS:	
380	(A) LENGTH: 55 base pairs	
381	(B) TYPE: nucleic acid	
382	(C) STRANDEDNESS: single	
383	(D) TOPOLOGY: linear	
W--> 385	(ii) MOLECULE TYPE: DNA	
388	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:	
390	GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GGGGT	55
393	(2) INFORMATION FOR SEQ ID NO: 18:	
395	(i) SEQUENCE CHARACTERISTICS:	
396	(A) LENGTH: 60 base pairs	
397	(B) TYPE: nucleic acid	
398	(C) STRANDEDNESS: single	
399	(D) TOPOLOGY: linear	
W--> 401	(ii) MOLECULE TYPE: DNA	
404	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:	
406	GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGGGT	60
409	(2) INFORMATION FOR SEQ ID NO: 19:	
411	(i) SEQUENCE CHARACTERISTICS:	
412	(A) LENGTH: 65 base pairs	
413	(B) TYPE: nucleic acid	
414	(C) STRANDEDNESS: single	
415	(D) TOPOLOGY: linear	
W--> 417	(ii) MOLECULE TYPE: DNA	
420	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:	
422	GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT	60

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/724,965

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Input Set : A:\14643-009031US.txt
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L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:124 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1
L:225 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7
L:241 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=8
L:257 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=9
L:273 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=10
L:289 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=11
L:305 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=12
L:321 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=13
L:337 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=14
L:353 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=15
L:369 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=16
L:385 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=17
L:401 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=18
L:417 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=19
L:435 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=20
L:453 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=21
L:471 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=22
L:489 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=23
L:507 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=24
L:525 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=25
L:541 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=26
L:557 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=27
L:573 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=28
L:589 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=29
L:605 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=30
L:621 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=31
L:637 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=32
L:653 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=33
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L:685 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=35
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L:717 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=37
L:733 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=38
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L:797 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42
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L:829 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=44
L:845 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=45
L:861 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=46
L:877 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=47
L:893 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=48
L:909 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=49
L:925 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=50
L:941 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=51

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L:957 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=52
L:973 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=53
L:989 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=54
L:1005 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=55
L:6160 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 306